REMARKS

The Applicant has now had an opportunity to carefully consider the Office Action mailed May 1, 2006. The acknowledgement of the Office of allowable subject matter in claims 4-6 and 16 (noted on page 9 of the Office Action but omitted from the Office Action Summary) is noted with appreciation. Additionally, withdrawal of the rejections of claims 1-12 and 15-22 under 35 U.S.C. §103(a) in light of McAllister (misidentified as McDuff in Section 3 of the Detailed Action) in view of Probert is noted with appreciation. Nevertheless, the new rejections are respectfully traversed and amendment, reexamination and reconsideration of the application are respectfully requested.

The Office Action

In the Office Action mailed May 1, 2006, :

claims 4-6 and **16** were recognized as including allowable subject matter;

claims 1, **7-8**, **10**, **12**, **15**, **18-20** and **22** were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2001/0012356 A1 by McDuff, et al. ("McDuff") in view of U.S. Patent No. 6,549,918 B1 to Probert, Jr., et al. ("Probert"); and

claims 2-3, **9**, **11**, **17** and **21** were rejected under 35 U.S.C. §103(a) as being unpatentable over McDuff in view of Probert and further in view of U.S. Patent No. 5,661,789 to Boyle, et al. ("Boyle").

The Present Application

By way of brief review, the present application identifies and addresses a problem in the prior art related to telecommunications network switches that is not recognized or addressed by the cited references. The problem recognized and addressed by the subject matter of the present application is that prior art telecommunications network switch data retrievers required that users retrieving switch data have an extensive knowledge about the particular switch database being queried. In the past, persons interested in examining switch data had to be proficient in the special query commands peculiar to the telecommunications network switch database in question. To address this problem, the present application discloses and claims systems and methods wherein raw switch data collection is automated and raw switch data is converted into a format that is compatible with a predefined spreadsheet

program. Therefore, where the systems and methods of the present application are available, the uninitiated can collect and easily understand the information represented by the raw switch data.

For example, raw switch data keeps track of switch hardware changes, switch software changes, switching activities, and responses to testing, troubleshooting routines, new product installation, etc. (page 2, lines 1-3). In this regard, it is respectfully submitted that one of ordinary skill in the art would understand that as used in the present application, --raw data which keeps track of switching activities-- or --switch or switching activity data-- refers to data that supports switching functionality, such as routing information, billing rules, triggers or other information for configuring how the switch carries out switching activities. By reviewing this information, a technician, for example, can determine how a telecommunications network switch is configured to operate. In this sense, such switching activity data keeps track of the switching activity of a switch.

Using the systems of the present application can speed and ease new product introduction and testing or customer acceptance testing. Data format converting can be bi-directional. Therefore, a technician can configure or reconfigure a telecommunications network switch or related switch information in a database of a switch without knowing the details of the switch database commands. For instance, a script can be used to convert spreadsheet data entries or changes into commands for changing related values in a switch database.

The Cited References

In contrast, it is respectfully submitted that the combination of McDuff and Probert does not disclose or suggest a system for automating the transfer of telecommunications network switch data or the conversion of switch data so that it can be viewed, and manipulated through the use of a predetermined spreadsheet program.

For example, McDuff allegedly discloses a monitoring system for telephony resources in a call center. The call center may include **agent** stations at which **agents** are stationed to handle calls. A call monitoring server monitors call activity **by the agents** to maintain state information **about the agents** and to gather statistics about the calling activity **of the agents**. A client program provides a graphical user interface and depicts the state information **about the agents** as part of the interface. The

graphical user interface may also display statistics regarding the call activity **of agents**, **agent supervisors**, **business clients** of the call center, and **the call center in aggregate** (Abstract).

McDuff discusses a --switching mechanism-- or automatic call distributor (ACD). However, it is respectfully submitted that one of ordinary skill in the art would understand that the subject matter of the present application is directed toward the processing and manipulation of data regarding a telecommunications network switch, such as, for example, the 5ESS® (page 1, lines 13-16, line 21; page 2, line 7) and not devices such as a call center automatic call distributor, which represents a process for receiving multiple calls in a call center and distributing them in some way (using queuing strategies) to a pool of operators.

It is respectfully submitted that one of ordinary skill in the art would understand that the subject matter of the present application is directed toward devices such as class 5 or class 4 switches which provide many functions that are not provided by devices such as the ACD of McDuff. For example one of ordinary skill in the art would understand that the switches referred to in the present application connect calls between trunks, between subscriber lines and/or between trunks and subscriber lines. Such switches perform complex digit analysis and routing in support of toll (switching office-to-switching office) calls, subscriber line-to-subscriber line calls, subscriber line to inter office trunk calls, international gateway routing, revenue sharing between long distance and international carriers, generate and respond to intelligent network triggers, support wireless mobile switching centers with interfaces to mobile base stations, and perform other functions. Additionally, the switching systems referred to in the present application provide a complete set of subscriber billing/charging functions and perform signaling switching functions such as SS7, STP and SCCP/TCAP interfaces to SCPs, HLRs and other intelligent service entities. Such switches also perform maintenance and system integrity functions, support complex subscriber services, such as, for example, call forwarding, abbreviated dialing and voice messaging. Additionally, such switches support a wide variety of interfaces including, for example, analog subscriber lines, digital ISDN subscriber lines, TBM voice trunks and signaling links, ATM/frame relay, TCP/IP, and associated protocols, such as, for example, ISDN, SS7, GR303, and V5.02. While any particular switch might not provide all these services, it is respectfully submitted that one of ordinary skill in the art would understand that the digital switches

and digital switching systems referred to in the present application are far more complex than the ACD of McDuff. Accordingly, the digital switches referred to in the present application are associated with complex databases which include a wide range of raw data for configuring and provisioning such switching functions.

McDuff uses the phrase --raw data--. However, the --raw data-- of McDuff is regarding calls (paragraph 7, lines 6 and 7) and not regarding a configuration of a telecommunications network switch.

It is respectfully submitted that Probert and Boyle do not remedy these deficiencies of McAllister. For example, Probert allegedly discloses a software layer residing between software components or application programs running locally or on a client across a computer network, and a persistent store of an operating system that provides on-the-fly conversions of persistent information formats. For instance, Probert allegedly addresses the issue that occurs "when a user buys a new computer loaded with the **latest software**, produces a document, and gives a copy of the document to someone else, only having a **previous version** of the software, the copy can be useless and indecipherable by the previous version (column 1, lines 55-59). Another example of the problem addressed by Probert arises "when a user desires to share documents and other files over a network with a person using a **different operating system**, or application, or even a **different version of the same operating system or application**. If the different systems use different formats for the operating system components, they may have difficulty sharing information. In particular, the newer system or application may use an information format that was invented after the earlier system was developed. These difficulties also arise with different applications that use a common type of information, but expect different formats, such as image processing applications that use JPEG instead of GIF, or document processors which use HTML instead of Word7 format. Incompatibilities can also be due to the file systems or other persistent stores used by different operating systems (column 1, line 60 - column 2, line 8).

However, Probert does not disclose or suggest **receiving raw switch data** from a digital switch or switching system, wherein the raw switch data is stored by the digital switching system in a switch database.

Boyle discusses a method for coordinating data changes among central office switches. The method transfers **customer data** among a plurality of central office

switches. In the method, a message directing switch communicates with at least one message receiving switch in a local telecommunication network. A data query is formulated in the message directing switch to retrieve specific data, such as data relating to a customer directory number from a message receiving switch. Once the data is received in the message directing switch, the data is processed and retained in the message directing switch or delivered to another switch in the telecommunications network. The method and system alleviates the need for manual retrieval and installation of specific customer line data when a directory number is moved from one central office switch to another (Abstract).

It is respectfully submitted that Boyle is unrelated to --raw switch data-- or the format conversion or spreadsheet display and manipulation thereof.

The Claims are not Obvious

New **claim 23** recites subject matter similar to that recited in allowable **claim 4** except that new **claim 23** does not include the phrase --using the output of said converter as a layout--. It is respectfully submitted that new **claim 23** is allowable for reasons that are similar to the reasons **claim 4** is allowable.

Claims 1, **7-8**, **10**, **12**, **15**, **18-20** and **22** were rejected under 35 U.S.C. §103(a) as being unpatentable over McDuff in view of Probert.

However, it is respectfully submitted that the switching mechanism or automatic call distributor (ACD) of McDuff is not fairly construed to be a digital switching system or digital switch as recited in independent **claims 1**, **7**, **15** and **19** of the present application. In this regard, it is respectfully submitted that one of ordinary skill in the art would understand that the digital switching system or digital switch referenced in the claims of the present application are clearly directed toward the switches of a telecommunications network such as, for example, class 4 or class 5 switches such as a 5ESS. Additionally, even though McDuff uses the phrase --raw data--, the raw data of McDuff is raw data regarding calls (e.g., paragraph 7, lines 6 and 7) and disclosure in McDuff of a computer/telephony integration server receiving raw data regarding calls is not fairly construed as a disclosure or suggestion of receiving raw switch data from a digital switching system, wherein the raw switch data is stored by the digital switching system in a switch database. It is respectfully submitted that discussion in paragraph 83 of McDuff (referenced by the Office Action) of a supervisor viewing statistics

regarding each of the **agents** and a table of call information including a column for a given business client and a column that identifies the total number of calls processed by the **agent** for the business and the average talk time, does not fairly disclose or suggest a database of switch storing raw switch data or receiving raw switch data from a digital switching system.

Similarly, paragraphs 84 and 85 of McDuff, also cited by the Office Action, discuss views and tables regarding an **agent** including, for example, those items depicted in FIG. 20 of McDuff including the name **of the agent**, the social security number **of the agent**, the total time in which the agent has been logged in, the name of the supervisor and business segments worked in by the **agent** or graphs showing the number of calls processed by the **agent** does not disclose or suggest receiving raw switch data from a digital switching system, wherein the raw switch data is stored by the digital switching system in a switch database.

It is respectfully submitted that Probert does not remedy these deficiencies of McDuff. Furthermore, Probert does not fairly disclose or suggest converting raw switch data into a format compatible with a predefined spreadsheet program.

As indicated in Applicant's Response F, which was mailed on January 31, 2006, the conversions discussed in Probert are related to, for example, conversion of data for different versions of a single application, such as between documents stored in a Word 7.0 format and a Word 8.0 format. Further, conversion modules of Probert can provide data from different applications, such as other word processors, spreadsheets or imaging programs which have their own formats for storing data. One example of such a format is the tag-based format of hypertext markup language (HTML). In this example, a work processor, which is not tag based, may store a document in one format and an HTML editor may request access to that document in HTML format. Upon receiving such a request to open the file containing the document, the filter driver may invoke a conversion module to perform dynamic conversion and provide an HTML view of the document to the HTML editor (column 8, lines 38-59).

However, it is respectfully submitted that nothing in FIG. 2, or the cited portion of column 8, discloses or suggests receiving **raw switch data** from a digital switch or **switching system** or converting **raw switch data** to a format compatible with a predefined spreadsheet.

Additionally, it is respectfully submitted that there is no motivation to combine the

subject matter of McDuff with the subject matter of Probert. The motivation suggested by the Office Action can only have been based on **impermissible hindsight** after a review of the present application. In this regard, it is respectfully submitted that McDuff includes eight figures (FIG. 13 - FIG. 20) which depict displays of information which are appropriate to the purpose of McDuff. For example, FIG. 13 depicts a window which includes a statistics section 390 that displays statistics regarding calling activity and a call center section 394 that has a graphic layout modeling the physical layout of the call center. Agent stations are depicted as rectangular buttons 400. Each button may display an icon that indicates the agent state, call type or business type. For example, rectangle 410 holds an icon that provides a visual cue that the agent is unavailable. Rectangle 411 holds a letter that indicates that an outbound call is being processed by the agent at the associated agent station. Rectangle 412 holds an icon that indicates the business client for which the agent is servicing a call. It is respectfully submitted that there is no indication in McDuff that the displays provided by McDuff could be improved upon by eliminating the graphical nature of the displays and replacing them with the rows and columns of a spreadsheet or with any other display design. Therefore, it is respectfully submitted that there is no motivation in the art (other than that provided by the present application) to combine subject matter of Probert with the subject matter of McDuff.

For at least the foregoing reasons, it is respectfully submitted that the Office has not met its burden of presenting a *prima facie* case of obviousness and **claim 1**, as well as **claims 2-6** and **claims 9** and **10**, which depend therefrom, is not anticipated and is not obvious in light of McDuff and Probert.

Independent **claim 7** was rejected under the same rationale as **claim 1**. Accordingly, arguments similar to those submitted in support of **claim 1** are submitted in support of **claim 7**.

For at least the foregoing reasons, **claim 7**, as well as **claims 8**, **11** and **12**, which depend therefrom, is not anticipated and is not obvious in light of McDuff and Probert.

Regarding **claim 15**, the Office Action asserts that McDuff discloses receiving raw switch data from a digital switch and directs the attention of the Applicant to paragraphs 7, 33 and 39 in support of this assertion. However, as indicated above, it is respectfully submitted that disclosure of receiving the "raw data" of McDuff (note,

McDuff does not refer to raw switch data) does not disclose or suggest receiving raw switch data. Moreover, while McDuff mentions receiving "raw data" from a switching mechanism, it is respectfully submitted that McDuff does not disclose or suggest receiving raw switch data from a digital switch or digital switching system as the term is used in the present application and recited, for example, in **claim 15**.

Additionally, arguments similar to those submitted in support of **claim 1** are submitted in support of **claim 15**. For example, it is respectfully submitted that there is no motivation in the art to make the combination suggested by the Office Action. For instance, the Office Action asserts that "the combination of the outputting and storing features to McDuff and Probert would help providing and checking data when needed and keeping the received data for later use." However, it is respectfully submitted McDuff does not disclose or suggest any usefulness related to keeping the received data for later use. Instead, McDuff provides an entity module 104 which is specifically responsible for **resetting** the statistics. For example, McDuff indicates that this module may reset the statistics on a daily basis "so that the statistics are current only for the given day" (paragraph 45, lines 17-19). In this regard, it is respectfully submitted that McDuff teaches away from the motivation proffered by the Office Action.

For at least the foregoing reasons, it is respectfully submitted that the Office has not met its burden of presenting a *prima facie* case of obviousness and independent **claim 15**, as well as **claims 16-18**, which depend therefrom, is not anticipated and is not obvious in light of McDuff and Probert.

Regarding **claim 18**, the Office Action directs the attention of the Applicant to paragraphs 67 and 71 of McDuff and asserts that McDuff discloses that raw switch data includes recent change and vary data.

However, as indicated above, McDuff does not make reference to raw switch data. Instead, in, for example, paragraph 7, McDuff mentions "raw data." Additionally, while paragraph 67 includes the word --change--, it is respectfully submitted that paragraph 67 does not discuss "the raw data" McDuff or the Recent Change and Verify data (RC/V) of the present application. Instead, it is respectfully submitted that paragraph 67 appears to be discussing changes in statistics calculated by a computer/telephony integration monitoring server (CTIMS). Paragraph 71 discusses FIG. 13, which depicts and example window that is generated by the monitoring system client. For example, if **an agent** is in an available state, unavailable state or an

error/unknown state, an icon associated with that state is displayed in a rectangle associated with **the agent**. However, it is respectfully submitted that paragraph 71 does not discuss the "raw data" of McDuff and does not disclose or suggest that raw switch data or that raw switch data includes Recent Change and Verify data (RC/V) discussed in the present application and recited, for example, in **claim 18**.

It is respectfully submitted that Recent Change/Verify data would be understood by one of ordinary skill in the art to refer to a subset of raw switch data that is accessible to a service provider for viewing and/or modification. For example, Recent Change/Verify data includes values and settings associated with timers, hardware configuration information and trunk group definitions associated with a digital switch. The statistics discussed in paragraph 67 of McDuff are not raw data received by the CTIMS of McDuff. Furthermore, they are not raw switch data. Instead, they are values calculated by the CTIMS.

For at least the foregoing reasons, **claim 18** is not anticipated and is not obvious in light of McDuff and Probert.

Claims 19 and **22** were rejected under the same rationale as **claims 15** and **18**. In this regard, arguments similar to those submitted in support of **claims 15** and **18** are submitted in support of **claims 19** and **22**, respectively.

Claim 20 was rejected under the same rationale as **claim 8**. Accordingly, arguments similar to those submitted in support of **claim 8** are submitted in support of **claim 20**.

For at least the foregoing reasons, **claims 19**, **20** and **22** are not anticipated and are not obvious in light of McDuff and Probert.

Claims 2-3, **9**, **11**, **17** and **21** were were rejected under 35 U.S.C. §103(a) as being unpatentable over McDuff in view of Probert and further in view of Boyle.

In explaining the rejection of **claim 2**, the Office Action relies on Boyle for disclosure of new product testing and directs the attention of the Applicant to column 1, line 60 - column 2, line 39, in support of the assertion that Boyle discloses "a new product testing is performed at a digital switch where raw data is received."

However, the cited portion of Boyle discusses a process wherein a service technician who receives a service work order from the central provisioning system, manually retrieves all data associated with a given customer directory number from a first central office switch and then manually installs the directory number data into a

second central office switch (column 1, line 67 - column 2, line 5). This process occurs, for example, when a customer who is currently served by an analog switch decides to set up a home office. She plans to install a facsimile machine and a personal computer in her home office and determines it would be beneficial to have ISDN service on her telephone line. Accordingly, the customer contacts a service representative of her local exchange carrier and requests ISDN service. Although the customer wants ISDN service, she clearly specifies that she does not want to change her current directory number. In response to the customer's request, the service representative enters a service order to provide ISDN service to the customer line identified by the customer's directory number into a customer service operations support system (OSS). Eventually, the service order reaches the central provisioning system which evaluates the order and, if possible, issues a work order ticket indicating that ISDN service is to be provided to the customer line identified by the directory number. In this example, it is assumed that the central office switch which serves the customer is an analog switch which is incapable of providing ISDN service. However, the LEC also maintains a digital switch (such as the 5ESS® switch sold by AT&T network systems) which is capable of providing ISDN service. Thus, to provide ISDN service to this customer, the customer's line must be wired to the digital switch. Nevertheless, in accordance with the customer's request, her local directory number and all existing features of her telephone service must not be changed. To complete this service order, the LEC technician physically wires a new customer line from a main distributing frame to the digital central office switch, he retrieves all customer data relating to the customer's directory number stored in the analog central office switch and enters the retrieved data and the newly requested ISDN feature into the digital central office switch (column 2, lines 8-46).

It is respectfully submitted that nothing in the cited portion of Boyle discloses or suggests "raw data," "raw switch data," **or "new product testing**."

For at least the foregoing additional reasons, it is respectfully submitted that **claim 2**, as well as **claim 5**, which depends therefrom, is not anticipated and is not obvious in light of McDuff, Probert and Boyle.

In explaining the rejection of **claim 3**, the Office Action relies on Boyle for disclosure of a customer acceptance test and directs the attention of the Applicant to column 1, lines 55-60, and column 2, lines 40-57, in support of the assertion that Boyle discloses performing said receiving, converting and outputting steps as part of a

customer acceptance test.

However, Boyle does not disclose or suggest converting raw switch data.

Column 1, lines 55-60, indicate that most customers who request new service features expect to keep their local directory number, as well as all of the existing features associated with their telephone service. To accommodate a customer's request and to ensure that there is no interruption of service, a carefully coordinated **data exchange between switches** is necessary.

Column 2, lines 40-57, explain that to complete such a service order, a LEC technician physically wires a new customer line from a main distributing frame to the digital central office switch, retrieves all customer data relating to the customer's directory number stored in the analog central office switch and enters the retrieved data and the newly requested ISDN feature into the digital central office switch. The technician must also program a new routing index in a separate database so that incoming calls may be properly delivered to the directory number, as is known in the art. After testing the newly established customer line to ensure that it is functioning properly, the technician severs the connection to the analog switch. Due to the manual retrieval and installation of data, the process is labor intensive, time consuming and prone to error. Therefore, Boyle asserts there is a need in the art for automatically retrieving and installing customer data in a central office switch in response to a work order message received from a provisioning system in a local telecommunications network.

However, it is respectfully submitted that nothing in column 1, lines 55-60, and/or column 2, lines 40-57, disclose or suggest converting raw switch data or data of any kind. Instead, the cited portions describe a manual transfer of data. While the cited paragraphs include the word --customer-- and the word --testing--, it is respectfully submitted that Boyle does not disclose or suggest the customer acceptance testing discussed in the present application and recited, for example, in claim 3. It is respectfully submitted that one of ordinary skill in the art would understand that the customer referred to in the present application is a telecommunications service provider and is a customer in the sense of an entity purchasing or leasing a digital switch.

For at least the foregoing additional reasons, **claim 3** is not anticipated and is not obvious in light of McDuff, Probert and Boyle.

In explaining the rejection of **claim 9**, the Office Action again directs the attention

of the Applicant to column 1, line 60 - column 2, line 39, and asserts that Boyle discloses a new product testing is performed at a digital switch where raw data is received. However, it is respectfully submitted that the cited portion of Boyle discloses receiving customer profile information and transferring that information to a second switch. Boyle does not disclose or suggest "raw data" or "raw switch data." Moreover, the testing discussed in the cited portions of Boyle is related to changes made in relation to a request from a communications services subscriber and is not related to --new product testing--.

For at least the foregoing additional reasons, **claim 9** is not anticipated and is not obvious in light of McDuff, Probert and Boyle taken alone or in any combination.

Claims 11, **17** and **21** were rejected under the same rationale as **claim 9**. Accordingly, arguments similar to those submitted in support of **claim 9** are submitted in support of **claims 11**, **17** and **21**.

For at least the foregoing additional reasons, **claims 11**, **17** and **21** are not anticipated and are not obvious in light of McDuff, Probert and Boyle.

Telephone Interview

In the interests of advancing this application to issue the Applicant(s) respectfully request that the Examiner telephone the undersigned to discuss the foregoing or any suggestions that the Examiner may have to place the case in condition for allowance.

CONCLUSION

Claims 1-12 and **15-22** remain in the application. **Claim 23** has been added. For at least the foregoing reasons, the application is now in condition for allowance. Accordingly, an early indication thereof is respectfully requested.

Respectfully submitted,

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Certificate of Mailing

Under 37 C.F.R. § 1.8, I certify that this Amendment is being

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